

What is claimed is:

1 1. A function module comprising:
2 a circuit board including a surface;
3 a first device disposed on the surface;
4 a second device disposed on the surface, wherein the
5 height of the second device is higher than the
6 height of the first device; and
7 a planarization member, including a flat surface,
8 disposed on the surface in a manner such that
9 the first device and the second device is
10 surrounded by the planarization member, wherein
11 the height of the flat surface is not less than
12 the height of the second device; and
13 a plate-type heat dissipation device disposed on the
14 flat surface.

1 2. The function module as claimed in claim 1,
2 wherein the planarization member is made of insulating
3 material.

1 3. The function module as claimed in claim 2,
2 wherein the insulating material is a thermosetting
3 polymer.

1 4. The function module as claimed in claim 3,
2 wherein the insulating material comprises one selected
3 from the group consisting of polyimide, silicone and the
4 combination thereof.

1 5. The function module as claimed in claim 2,
2 wherein the planarization member further includes a
3 thermal-conductive material.

1 6. The function module as claimed in claim 5,
2 wherein the thermal-conductive material comprises one
3 selected from the group consisting of AlN, SiC, BN, ZnO
4 and the combination thereof.

1 7. The function module as claimed in claim 1,
2 wherein the plate-type heat dissipation device is a
3 plate-type heat pipe, a micro fin, a vapor chamber, or a
4 water-cooling device.

1 8. The function module as claimed in claim 1,
2 wherein the second device is a CPU.

1 9. A method for manufacturing a function module,
2 comprising:

3 providing a circuit board and a plate-type heat
4 dissipation device, wherein the circuit board
5 includes a plurality of devices with varying
6 heights thereon;

7 placing a planarization member on the circuit board
8 so that the devices are surrounded by the
9 planarization member;

10 curing the planarization member so as to form a flat
11 surface, wherein the height of the flat surface
12 is not less than the height of the devices; and
13 placing the plate-type heat dissipation device on
14 the flat surface.

1 10. The method as claimed in claim 9, wherein the
2 planarization member is made of insulating material.

1 11. The method as claimed in claim 10, wherein the
2 insulating material is a thermosetting polymer.

1 12. The method as claimed in claim 11, wherein the
2 insulating material comprises one selected from the group
3 consisting of polyimide, silicone and the combination
4 thereof.

1 13. The method as claimed in claim 10, wherein the
2 planarization member further includes a thermal-
3 conductive material.

1 14. The method as claimed in claim 13, wherein the
2 thermal-conductive material comprises one selected from
3 the group consisting of AlN, SiC, BN, ZnO and the
4 combination thereof.

1 15. The method as claimed in claim 9, wherein the
2 planarization member is covered by two protective layers,
3 and the protective layers are disposed at opposite sides
4 of the planarization member in a detachable manner.

1 16. The method as claimed in claim 15, wherein one
2 of the protective layers is separated from the
3 planarization member before the planarization member is
4 disposed on the circuit board, and another protective
5 layer is separated from the planarization member before
6 the planarization member is cured.

1 17. The method as claimed in claim 15, wherein one
2 of the protective layers is separated from the
3 planarization member before the planarization member is
4 disposed on the circuit board, and another protective
5 layer is separated from the planarization member after
6 the planarization member is cured.

1 18. The method as claimed in claim 9, wherein the
2 plate-type heat dissipation device is a plate-type heat
3 pipe, a micro fin, a vapor chamber, or a water-cooling
4 device.

1 19. The method as claimed in claim 9, wherein the
2 planarization member is cured by heating the
3 planarization member.

1 20. The method as claimed in claim 9, wherein the
2 planarization member is cured by infrared light
3 irradiation.

1 21. The method as claimed in claim 9, wherein the
2 planarization member is cured by ultraviolet light
3 irradiation.

1 22. A method for manufacturing a function module,
2 comprising:

3 providing a circuit board and a plate-type heat
4 dissipation device, wherein the circuit board
5 includes a plurality of devices with varying
6 heights thereon;

7 placing a planarization member on the circuit board
8 so that the devices are surrounded by the
9 planarization member;
10 forming a flat surface on the planarization member,
11 wherein the height of the flat surface is not
12 less than the height of the devices; and
13 placing the plate-type heat dissipation device on
14 the flat surface.

1 23. The method as claimed in claim 22, wherein the
2 planarization member is made of insulating material.

1 24. The method as claimed in claim 23, wherein the
2 insulating material is a thermosetting polymer.

1 25. The method as claimed in claim 24, wherein the
2 insulating material comprises one selected from the group
3 consisting of polyimide, silicone and the combination
4 thereof.

1 26. The method as claimed in claim 23, wherein the
2 planarization member further includes a thermal-
3 conductive material.

1 27. The method as claimed in claim 26, wherein the
2 thermal-conductive material comprises one selected from
3 the group consisting of AlN, SiC, BN, ZnO and the
4 combination thereof.

1 28. The method as claimed in claim 22, wherein the
2 planarization member is covered by a protective layer and
3 the plate-type heat dissipation device, and the
4 protective layer and the plate-type heat dissipation

5 device are disposed at opposite sides of the
6 planarization member.

1 29. The method as claimed in claim 28, wherein the
2 protective layer is separated from the planarization
3 member before the planarization member is disposed on the
4 circuit board.

1 30. The method as claimed in claim 22, wherein the
2 plate-type heat dissipation device is a plate-type heat
3 pipe, a micro fin, a vapor chamber, or a water-cooling
4 device.